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ABSTRACT

This paper discusses a study that examined three questions: How has overall state spending on higher education changed from year to year in relation to states' ability to fund higher education? (2) Has the growth in state spending on higher education varied significantly from the growth in total state budgets in recent years? and (3) What have been the factors contributing to the changes? The paper discusses the study in three main analytical sections. The first includes an analysis of state tax capacity and state spending on higher education per capita in fiscal years 1980 and 1990. The second section looks at data collected annually by the Fiscal Section of the National Conference of State Legislatures regarding state budget actions between 1985 (first year of the survey) and 1990. It also provides statistical comparisons of higher education spending growth with overall spending growth in the states showing the ebb and flow of higher education spending at somewhat differing rates than the ebb and flow of overall spending. The final section focuses on the experiences of two states: Michigan and Arizona, and traces the resulting policies (share of state spending for higher education) to events and evidence of policy prominence. Appendices contain study statistics. Contains 18 references. (GLR)

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State funding of higher education amid competing interests: an analysis of various environmental conditions.

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Association for the Study of Higher Education

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ASSOCIATION FOR THE STUDY OF HIGHER EDUCATION

This paper was presented at the annual meeting of the Association for the Study of Higher Education held at the Park Plaza Hotel & Towers in Boston, Massachusetts, October 31-November 3, 1991. This paper was reviewed by ASHE and was judged to be of high quality and of interest to others concerned with the research of higher education. It has therefore been selected to be included in the ERIC collection of ASHE conference papers.

State funding of higher education amid competing interests: an analysis of various environmental conditions.

Jan W. Lyddon and Daniel T. Layzell

Purpose of the Study

Higher education advocates in many states have complained that funding for colleges and universities has become a lower priority for legislators, governors and other state policy makers. Data and anecdotal information indicate for example, the percentage share of the total state budget spent for higher education has changed over time. Further, the priorities directly related to higher education spending have also shifted, though not always in easily measured ways.

It is clear that higher education spending by states differs from state to state. For example, in the 1980s, Maine increased its spending by 208% while Louisiana increased by 58% (Grapevine, Oct./Nov. 1989, p. 2262). That fact alone, however, provides little information about states' ability to pay and interest in paying for higher education. Other information can be obtained by comparing higher education spending with other areas of state responsibility such as spending for prisons, elementary and secondary education, or welfare.

The research questions for this study are:

1. How has overall state spending on higher education changed from year to year in relation to states' ability to fund higher education?
2. Has the growth in state spending on higher education varied significantly from the growth in total state budgets in recent years?
3. What have been the factors contributing to the changes?

Conceptual Framework

States are required by their own constitutions to have balanced budgets, yet demands by competing interests create continual challenges for state governments. They must divide the state's budget among various broad program areas, yet total spending must not exceed revenue. Specific programs gain or lose relative

shares of the budget over time. Of concern here is when do those shares change, and what are the conditions related to (or causing) the changes in relative share of state spending?

State budgeting for higher education is influenced by a variety of environmental factors including a state's previous level of spending for higher education, its economic conditions, demographic situation, and political culture and actors (Lyddon, Fonte, & Miller, 1986). Within the broad categories are a variety of individual factors which can be measured separately and in combination with each other. For example, a state's economy (as measured by personal income and other indicators) may be healthy or recessionary, thereby influencing state revenues which in turn influence the total amount available to divide among the competing interests.

Among the least satisfactorily measured of the categories are political factors. The players within and around state government are critical to determining whether higher education gets a greater or larger share of the budget in any given year. Some of these factors are relatively easy to measure, including change of governor, or change of leadership and/or partisan control in a house of the legislature. Others are less easily measured, including the point at which an idea comes to policy prominence. Ideas that have been enacted are those that have come to policy prominence, and prior to enactment of the ideas, they have often been included in speeches (e.g., a governor's "state of the state message") or in published documents (e.g., newsletters from legislators). Further, the prominence and power of individual players is critical to the policy prominence of an idea. For example, in one state the chairman of the higher education subcommittee of appropriations became Speaker of the House, thus gaining prominence and drawing from a base of understanding of a particular budget area to develop his agenda of policies. The phenomena related to agendas and alternatives for public policies have been studied at the national level (Kingdon, 1984), but not as closely at the state level.

Method of Analysis

This study consists of three main analytical sections. The first analytical section includes an analysis of state tax capacity and state spending on higher education per capita in fiscal years 1980 and 1990. The data source is Halstead's State Profiles: Financing Public Higher Education, 1978 to 1990. Tax capacity is defined as potential state and local tax revenue per capita. It is measured by determining the amount of revenue that

could be raised by a state and its local governments if every state/local system applied identical tax rates to its existing tax base.

The second analytical section looks at data collected annually by the Fiscal Section of the National Conference of State Legislatures regarding state budget actions between 1985 (first year of survey) and 1990[1]. The data collected reports the percentage increase in state general fund appropriations over the previous year for major functional areas including K-12 education, higher education, corrections, welfare, Medicaid, and total general funding spending by state. The survey also reports the extent to which functional areas such as higher education are considered to be leading fiscal issues by legislative fiscal officers.

The third analytical section focuses on the experiences of two states: Michigan and Arizona, and traces the resulting policies (share of state spending for higher education) to events and evidence of policy prominence. The environmental conditions in each state stand in stark contrast. Arizona's population grew while Michigan's declined during the 1980s. The economies of the two states changed in opposite directions; while Arizona's economy experienced relative health, Michigan's suffered serious recessions. However, the rapid growth and piecemeal tax structure in Arizona have strained the state's capacity to provide services to its residents. Higher education has been forced to compete for state dollars with other services. Michigan, on the other hand, has a fairly stable tax structure and well-developed services. Even so, higher education in Michigan has had to compete for its share of state spending. This "Sunbelt/Rustbelt" analysis vividly illustrates how environmental factors can combine to result in both different and similar effects.

Part One: Tax Capacity In The States

An important factor affecting the size of state budgets as well as the financial condition of state governments is tax capacity. State tax capacity is defined as the amount of state revenue that would be generated if a state's revenue base was taxed at the maximum allowable rates for taxes and service fees (Berne & Schramm 1986). Depending on the types of taxes and other fees collected by state governments for deposit into the general fund (e.g., personal income, sales, property, etc.), a state's revenue base can consist of the

[1] We used different data sets in this study to answer different questions. In each case we used the best available source. Unfortunately, the different data sets did not all cover identical time periods.

volume of general sales, total personal income, corporate income, property values, and natural resource production, to name a few. As such, a state's revenue base, and ultimately its tax capacity, are determined largely by the condition of its economy. Halstead (1989) notes that "state governments face no more severe handicap in their task of adequately supporting public services than the near permanent burden of low tax capacity" (p. 22).

The table below compares the change in average per capita tax capacity with the change in average per capita appropriations for public higher education in the states between fiscal years 1980 and 1990. Both are reported in constant FY 1990 dollars:

Per Capita Tax Capacity and Public Higher Education Spending FY 1980 and FY 1990

	FY 1980	FY 1990	Percent Change
Tax Capacity	$1,386	$1,772	27.8%
Higher Ed.	$139	$154	10.8%

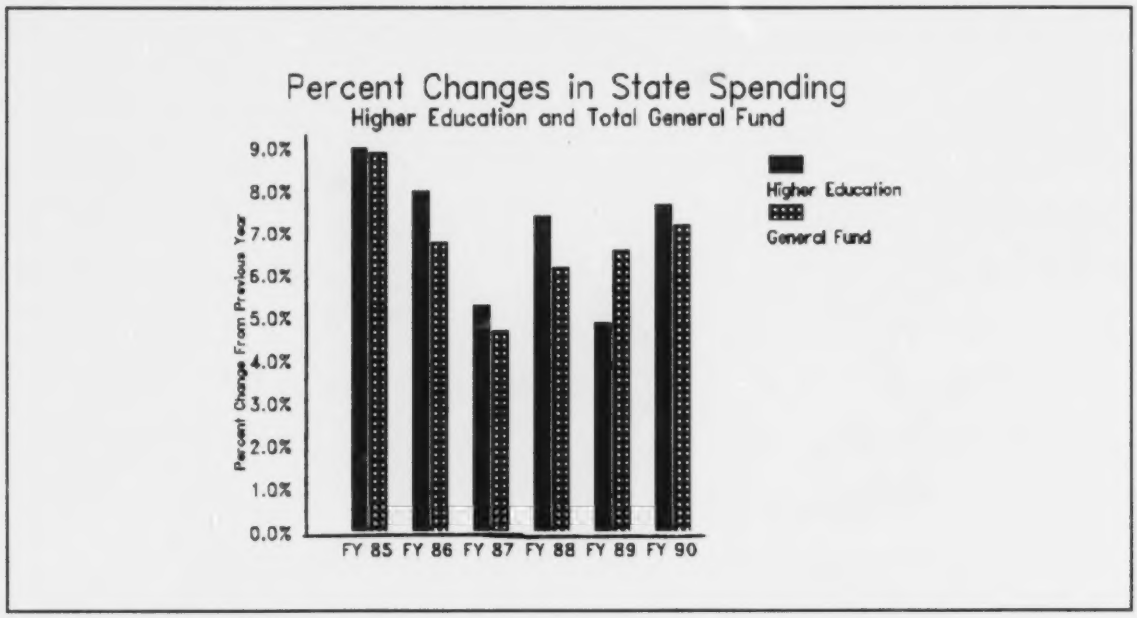
Source: Halstead (1990)

As indicated, the real growth rate in the average per capita tax capacity was over twice that of average per capita spending on public higher education in the states between fiscal years 1980 and 1990. In short, on average, the states' ability to pay for higher education grew at a faster rate than their actual support.

Part Two: Higher Education and State Budgets: A National Perspective

The following section suggested that state support for higher education did not increase as fast as the states' ability to fund higher education as measured by the real change in tax capacity. A question that follows from this is, has state support for higher education grown at a lesser rate than the total state budget? Appendix A presents detailed information by state comparing the percentage change in state general fund support for higher education with the percentage change in the total state budget for fiscal years 1985 through 1990. This data has been collected annually by the Fiscal Affairs Program area of the National Conference of State Legislatures (NCSL) since fiscal year 1985 and is reported in the annual State Budget Actions report prepared by the NCSL staff.

The figure below compares the average percent change in state support for higher education with the average percentage change in total state general fund spending between fiscal years 1985 through 1990. On average, state support for higher education grew at a slightly higher rate than total state general fund



expenditures during this period (with the exception of FY 1989). From this standpoint, then, higher education tended to fare at least as well, if not better than the total state budget in terms of appropriations growth on the average during this period despite changes in tax capacity.

The size of a state's budget from year to year is largely determined by the availability of state revenues and ultimately its tax capacity. An underlying argument of this paper is that higher education is not immune from the ebb and flow of the overall state budget situation. Various researchers have found a significant relationship between state spending on higher education and the availability of state revenues (see, for example, Coughlin & Erekson 1986 and Garms 1986). As a means of testing this argument, the change in total general fund spending was regressed against the change in higher education spending in each state for each year. The regression results are presented in the table below:

Regression Results State Budget Changes as a Predictor of State Spending on Higher Education				
Year	N	Coefficient	T-ratio	R-Square
FY 1985	49	0.741	4.43#	0.2949
FY 1986	50	0.491	3.39#	0.1932
FY 1987	50	0.698	7.13#	0.5144
FY 1988	49	0.483	3.80#	0.2351
FY 1989	48	0.414	3.58#	0.2178
FY 1990	50	0.672	5.49#	0.3859
# - Significant at $p > 0.005$.				

The change in total general fund spending was a significant variable in predicting the change in higher education spending in each fiscal year.

However, as indicated by the generally low R-Square values, the change in the size of the state general fund budget did not totally account for the change in state spending on higher education. The data in Appendix A indicate that in various states in various years, the growth in higher education spending was substantially above or below that of the total state budget. As part of the state budget, higher education competes for state funds with a variety of other agencies and functional areas of state government. Appendix B indicates the leading fiscal issues in the states between fiscal years 1983 and 1990. This data is based on an annual survey of legislative fiscal officers (LFOs) in each state in which the LFOs were asked in an open ended question to list the leading fiscal issues from the previous legislative session. The data in Appendix B indicates that higher education's role as a leading fiscal issue has waxed and waned over time when compared with such other leading issues as taxation, corrections, health and welfare. This suggests that state support for higher education is a function of both the state's overall budget situation as well as the political economy of the legislative appropriations process.

Governors, too, have judged higher education as more -- and less - important in various years. While longitudinal data are not available, it is interesting to note that 41% of the nation's governors named higher

education as the state's "most serious unmet needs because of budget problems." Health care and social services ranked higher, and public works/infrastructure tied with higher education (Newsweek, July 1, 1991 p. 27).

Part Three: Case Examples: Michigan and Arizona

Each state has different demographic, economic, political, historical, and budgetary circumstances. The description that follows is intended to point highlights to illustrate the climates within each state.

Michigan

Michigan's population remained virtually the same during the decade, gaining less than 1%. While the overall number remained the nearly same, the character of the population shifted to include a greater proportion of dependent persons: the elderly and the poor. One consequence of this shift is economic because it creates additional drain on government-funded services. Another dependent portion of the population, children, declined at a rate faster than the rate for the rest of the nation. The consequence of this is reduced stress on schools for seats in classrooms, but as with educational services throughout the nation, more children are in poverty and thus in need of often expensive forms of assistance within and outside the schools.

Michigan's Economy. Michigan's economy has been based on heavy industry; "Detroit" is synonymous with "cars" for many, although fewer and few automobiles and related parts are manufactured in Detroit, let alone Michigan. The number of people employed in manufacturing is remaining relatively steady, though as a percentage of total jobs, it is rapidly being overtaken by the service sector (Gregory, 1990). No one service industry predominates, though tourism-related business is a large segment of the service jobs. In some respects the diversification of the economy is a positive trend, though the relative youth of many of the service industries and the relatively low wage rates in the service sector generally has dampened the prospects of tax revenue growth from this job shift.

Michigan Politics. A state with a strong tradition of split ticket voting, Michigan's political scene in the 1980s included several significant shifts. In 1982, during a deep recession, a Democratic governor was elected after 16 years of Republican governors. That same year, both houses of the legislature turned Democrat, assuring for a brief time that issues popular with Democrats would achieve prominence. The

recession of the early 1980s was creating large budget deficits for the state, and the new governor's first option was to cut deeply into nearly all program areas. His next step was to propose an increase, albeit temporary, in the state income tax rate. The result was bloody political fallout, including the recall of two Democratic state senators and the subsequent election of Republicans to those seats. The Senate returned to Republican control, and the legislature as a whole gained great distaste for tax increases and other politically risky moves.

At the same time, one Michigan county, a suburban Detroit county, became a bell weather area in national politics. The so-called "Reagan Democrats" among blue-collar workers became a politically potent force in Michigan as well. Many political issues were first tested on suburban Detroit (most especially Macomb County) voters before the rest of the state to assure they would play well. One issue that rose frequently was crime and crime control. To a lesser extent, the governor was able to promote education in general and K-12 education in particular to an interested audience.

Higher Education in Michigan. Michigan is home to some of the nation's largest public universities. Some 560,000 students are enrolled in 97 institutions; most are evenly split between 15 state universities, and 29 community colleges. The independent colleges and universities, while politically potent, represent a small segment of the enrollment. Higher education institutions in the state are highly autonomous. The titular state coordinating board is the State Board of Education, though except for a few reports and some state-funded financial aid programs, the institutions pay little heed to this body. The focus within the state is on the Legislature and the Governor (and the budget office when it is assembling the governor's budget recommendations each year). The constitutional and legal status of public universities in particular has resulted in much reliance on moral suasion rather than legal dictates to accomplish political or policy goals. One example of this is the creation of the Michigan Education Trust (MET) program to promote pre-payment of tuition. The MET program, a pet project of the Democratic governor, was used as an indirect mechanism to hold down tuition rates: the actuarial estimates and assumptions of the MET Board became the target for annual tuition rate increases that were in turn requested of all state universities. During this period tuition rates rose only at the rates permitted via moral suasion by the governor. Political attention focused on the universities, but without resultant enhancements of status or funds.

In 1984 the Governor's Commission on the Future of Higher Education released its final report which "... received widespread attention and a great deal of favorable comment" (Sederburg, 1986 p. 1). The Commission's report was followed closely by a Senate Select Committee report in 1986, reflecting some partisan efforts to control the political and policy agenda on higher education. The latter report noted that an additional expenditure of some $300 million (approximately 33% increase) would be needed to return Michigan to 14th in the nation in per person financial support of higher education (from its 1985 rank of 35th). The Governor's Commission report, on the other hand, had recommended nothing in the way of overall changes in funding levels. It had suggested some increases, notably for certain financial aid programs and for repair and upgrading of the physical infrastructure, and some decreases, notably to reflect anticipated declines in enrollment (which did not materialize). Neither effort, while generating interest within the higher education community, created much political stir. Both would perhaps be best classified as development of alternatives as opposed to creation of agendas.

Michigan's Budget. State spending nearly doubled during the decade, rising from $10.5 billion in fiscal 1979 to $20.9 billion in fiscal 1989 (U.S. Bureau of the Census). The largest percentage increase occurred in corrections spending (428%), and the smallest occurred in education other than higher education (K-12 education plus funding for the Department of Education) at 55% increase in the 10 years. The chart on the next page shows changes in the proportionate share for each of these functions in the ten years from 1979 to 1989.

While Corrections spending is not a very large proportion of the budget, its phenomenal growth during the period clearly indicates it was a high priority for state government. Not only did spending increase, the prisoner population increased greatly as did average minimum terms (Gregory, 1990), thereby increasing long-term commitment to spend state dollars.

The "other functions" category is clearly the largest, though it is also the most amorphous. It includes functions closely related to some of the ones above (e.g., the Department of Public Health is related to public welfare, though falls in a different category), and some distinct functions (e.g., the Commerce Department and its regulatory and economic development functions).

Changes in Michigan State General Fund Spending By Function					
FY 1979 to FY 1989					
(in millions)					
	Higher Education	Public Welfare	Correc-tions	Other Functions	Total Budget
FY 1979	$1,273.4	$2,381.9	$156.9	$4,542.4	$10,507.4
% Total	12.1%	22.7%	1.5%	43.2%	100.0%
FY 1989	$2,757.2	$4,494.4	$828.8	$12,800.9	$20,881.3
% Total	13.2%	21.5%	4.0%	61.3%	100.0%
% Change	116.5%	88.7%	428.0%	181.8%	98.7%
Source: State Government Finances, U.S. Department of Commerce					

Within higher education a number of budget-related actions occurred. Another effort was made to establish a funding formula (or a related technique: a model for the system needs). The effort failed for three major reasons: 1) the institutions themselves did not see the virtue of a funding formula or model because of little likely increase in funding and highly likely increase in state oversight and intervention in university affairs, 2) there was little enthusiasm on the part of a key legislator (chairman of the House Appropriations Subcommittee on Higher Education) and the governor himself, and 3) the state's economic picture failed to brighten significantly[2]. A few years earlier, however, the community colleges funding was changed to rely more heavily on a funding formula. In this instance, there was strong support for a formula from the key legislators and the formula was adopted when the state's economic picture was not as dismal, though full implementation of the formula slowed during the recessions.

[2] Funding formulas are typically abandoned during periods of economic stress.

In the early 1980s there were a series of mid-year cuts to higher education budgets. This, combined with pressure by the Governor and Legislature to hold tuition rate increases to a fixed percentage for all institutions, created some serious budget problems for institutions. Additionally, while the total funding grew somewhat, there was a greater tendency to earmark funds for certain purposes, for example, a "Research Excellence Fund" and a "Teaching Excellence Fund." These laudable purposes often were not fully funded by the state monies, and the institutions had to include funds from other sources (including other portions of the state appropriations) to cover the costs of certain of these initiatives.

Arizona

Like the rest of the Sunbelt, Arizona's population grew significantly during the 1980's. Between July 1, 1980 and July 1, 1990, Arizona's population grew from 2,518,000 to 3,489,000, an increase of 38.6%. This was second only to Nevada's population growth (46.6%) during this same time period. Over three-fourths of Arizona's population is concentrated in two urban metropolitan areas: Phoenix and Tucson. The rest of the state is very rural and sparsely populated.

Arizona's Economy. Traditionally, Arizona's economy has been based on the four C's: Cattle, Cotton, Copper, and Citrus. The 1980's brought an additional C to the state: Cash. The table below illustrates the change in employment patterns during the 1980s:

Major Sectors of Arizona Employment

Year	Goods Producing	Service Producing	Total
1980-81	253,000	774,000	1,027,000
% Total	24.6%	75.4%	100.0%
1989-90	285,000	1,196,000	1,481,000
% Total	19.2%	80.8%	100.0%
% Change	12.6%	54.5%	44.2%

Source: Joint Legislative Budget Committee (1990)

Goods producing jobs include manufacturing, construction, and mining while Service producing jobs include finance, real estate, insurance, transportation, communications, public utilities, government, and miscellaneous

services. As indicated, Arizona's economy was already heavily inundated with service-related industries at the beginning of the 1980s but became even more so by the end of the decade. Arizona has been in a state of economic downturn since the mid-1980s. This is due in part to problems in the real estate and finance sectors of the economy. Total employment growth in the state decreased every year between fiscal year 1985 and 1989.

Arizona Politics. Arizona's politics is a blend of the conservative and the progressive. Historically, the state has adopted a conservative, *laissez faire* attitude with regard to governmental regulation and in providing public services. Though many of these traditions endure, an influx of people from the Northeast and Midwest during the past several years has changed the political landscape through an increased demand for public services, including higher education. The composition of both houses of the legislature had a Republican majority during the 1980s, however, the most recent election produced a Democratic majority in the Senate. On the other hand, the state had a Democratic governor for most of the 1980s (with the exception of a short period in the mid-80s). The current governor is Republican.

There has been a "no new taxes" climate in the state in recent years which obviously has hampered the actions of the legislature and the executive branch. Further, public opinion of state government has waned in recent years, adding caution to efforts to expand state government.

Higher Education in Arizona. Arizona, like most western states, has a strong tradition of public higher education. The state has relied almost exclusively on its public universities and community colleges to provide services to its citizens. Further, the Arizona State Constitution has a provision which states that higher education will be as free of cost to the residents of the state as possible (paraphrased). Not surprisingly, Arizona's public higher education participation rate of 4.70 FTE students per high school graduate in FY 1990 was the highest in the country (Halstead 1990).

Arizona has three public universities: Arizona State University (ASU) located in Tempe, Northern Arizona University (NAU) located in Flagstaff, and the University of Arizona (UA) located in Tucson. While the UA was founded as a land grant university, the other two universities began as teacher's colleges. Further, in fall 1989, ASU and the UA had respectively the 6th and 13th largest campuses in terms of headcount

enrollments (Chronicle 1991). The universities are governed by the Board of Regents, an appointed statewide board established in the state constitution. Arizona also has 10 community college districts (the tenth was just established in Spring 1991) governed by local boards of trustees. There is also a State Board of Directors of Community Colleges which serves as a statewide coordinating board. The change in headcount enrollment at the community colleges and public universities between FY 1980 and FY 1990 is presented in the table on the next page. As indicated, overall enrollment in the community colleges grew at a much faster rate than overall enrollment at the public universities. This is due to a combination of factors including:

* An attempt by the public universities to manage their enrollment growth, especially at ASU and UA
* The downturn in the state economy in the mid-1980s which stimulated enrollments at the community colleges
* An increasing price differential between the cost of attending a community college and a public university.

Headcount Enrollment in Arizona Public Higher Education
Fall 1979 and Fall 1989

	Fall 1979	Fall 1989	Percent Change
Community Colleges	**108,777**	**150,254**	**38.1%**
Public University	**79,279**	**96,317**	**21.5%**
Arizona State U.	37,555	43,546	15.3%
Northern Arizona	11,601	16,095	38.7%
U. of Arizona	29,923	36,676	22.6%
Total Headcount	**188,056**	**246,571**	**31.1%**

Source: Data from Joint Legislative Budget Committee records.

Overall, however, higher education in Arizona faced increasing pressures to expand throughout the 1980's as a result of the significant population gains it made during this period.

The Arizona Budget. The state's general fund budget grew substantially during the 1980's as a result of the demographic pressures previously discussed. Between FY 1980 and FY 1990, the total general fund

budget grew from $1.06 billion to $3.05 billion, an increase of 186.7%. The table below illustrates changes in state general fund spending on higher education, health/welfare [Medicare/Medicaid, Aid to Families with Dependent Children (AFDC), etc.], protection/safety (prisons, etc), and other functions (K-12 education, general government, etc.) between fiscal years 1980 and 1990:

Changes in State General Fund Spending By Function
FY 1980 to FY 1990
(in millions)

	Higher Education	Health/ Welfare	Protectio& Safety	Other Functions	Total Budget
FY 1980	$240.4	$174.4	$71.1	$576.6	$1,062.5
% Total	22.6%	16.4%	6.7%	45.7%	100.0%
FY 1990	$566.2	$752.9	$352.0	$1,374.6	$3,045.7
% Total	18.6%	24.7%	11.6%	54.9%	100.0%
% Change	135.5%	331.7%	395.1%	138.4%	186.7%

Source: Joint Legislative Budget Committee Annual Appropriations Reports.

State general fund spending on higher education decreased as a percentage of the total during this period. The largest increases were in health and welfare and protection and safety. Some of the contributing factors in these increases were the advent of the Arizona Health Care Cost Containment System in FY 1984 (essentially Medicare/Medicaid), an increase in AFDC recipients and their payments, and an increase in mandatory sentencing for certain crimes resulting in a tripling of the adult prison population. Further, higher education had several years of budget increases followed by mid-year budget cutbacks during the 1980s.

However, these factors alone do not account for higher education's declining share of the state budget. There are qualitative factors at play as well. Higher education in Arizona, particularly the universities, is seen by many legislators and others involved in the policy process as a "money pit." The salaries received by the faculty and especially the administrative staff at the public universities and the Board of Regents are, with few exceptions, among the highest in state government. This issue surfaces annually in legislative appropriations hearings. There is also a perception among legislators that higher education in general is often blind to the financial pressures and constraints facing the state.

Other problems faced by Arizona higher education in improving its relationship with the legislature are the turf battles and in-fighting among the universities and between the universities and the Board of Regents. The relationship among the community college districts and the state board is no more cordial. Further, although the state general fund portion of the budget going to public universities has decreased over time, the universities have retained substantial flexibility with regard to a large part of their annual operating income which is not subject to the legislative appropriations process. Most state agencies in Arizona receive line item appropriations and have little flexibility or discretion above and beyond their general fund revenue. There is some movement towards bringing a greater portion of these non-appropriated funds under the appropriations process.

In summary, higher education in Arizona faces an uncertain future with regard to state funding. The increase in competition from other sectors of state government, especially health and welfare and corrections will likely continue. Whether the competition continues to erode higher education's share of the state budget has much to do with improving relations with the Legislature.

Discussion

The study was guided by three questions: has the proportion of states' budgets spent on higher education changed and how? and what are the factors contributing to the change?

The first two questions taken together have fairly obvious answers. The proportion of states' budgets spent on higher education has changed, usually away from spending for higher education. On average, states have increased their tax capacity significantly over ten years, while higher education spending has grown far less. States, then, had the *potential* revenue ability (in general) to fund higher education to a greater extent, but did not always exercise the potential. Another analysis, comparison of actual total state spending with total higher education spending indicates higher education did comparatively well, having grown at a slightly greater rate than total state general fund expenditures. One conclusion could be that state policy makers have little taste for raising taxes to keep up with potential revenue capabilities (note the experience in Michigan in the early 1980s), thus they try to remain within the bounds of existing revenue capabilities. Further, they then cut corners in other areas, either by directly cutting back on spending or by denying requests for new

spending, in order to meet the needs of more politically palatable spending options. Higher education may or may not be politically palatable at any given time.

Thus, the second portion of the analysis, statistical comparisons of higher education spending growth with overall spending growth in the states points to the ebb and flow of higher education spending at somewhat differing rates than the ebb and flow of overall spending. The low R-square values in a regression of higher education against state budgets identified the relative lack of power of overall budgetary health in predicting how well higher education will do.

The third analysis, then, reviews the cases of two very different states, Arizona and Michigan. Both states have experienced political "shuffles" of top state leaders, and in both instances with considerable public attention and little placidity. Both states have large nationally prominent public universities and a comparatively heavy dependence on the public institutions to take care of its higher education needs. Both states experienced economic problems in the 1980s; however, in Arizona, higher education's share of the state's budget declined, while in Michigan, higher education increased its share of the state's budget. What explains these differences in outcomes?

In Arizona, the flood of new people may have increased demands for new services such as health and welfare and protection and safety. Similarly, the characteristics of the new residents may have included many who did not need higher education, at least in the near term. With the results of the new census just available, we were unable to examine closely the characteristics of the new residents. We could speculate that they include a large number of adults who have completed college (including retirees), as well as many families and individuals for whom higher education is not yet an option (e.g., because children are still too young). Thus, the immediate pressures on Arizona's leaders were not to greatly expand higher education. Rather, the pressures were felt in other areas such as the two already mentioned. Higher education is a convenient bank to borrow from in the appropriations process, not just in Arizona, but certain actions within higher education may provide a greater justification for already-determined policies. For example, an appropriations committee member may represent a district that includes middle class families who have expressed concern about paying increased tuition costs for their children. The increases in tuition, then, become a symbolic issue and the

politician then attempts to see where the money goes within higher education institutions. Certain items may stand out from normal expenditures such as salaries for selected individuals or groups in comparison with general salaries in other employment sectors. These may then become rationales for not increasing spending to a greater extent. The stronger explanation in Arizona is that there were even greater pressures to spend in areas that have traditionally been underfunded such as welfare, health, and corrections. Higher education may have been seen as sufficiently funded in past years, so there was little political will to provide much additional funding for the state.

Michigan, on the other hand, increased the share of the state's budget for higher education. Many of the higher education conditions seemed the same as in Arizona, such as relatively high salaries for a few individuals. However, Michigan had a strong governor during most of the 1980s who was willing to invest at least some additional funds and/or to shield higher education somewhat from severe cuts during recessions. Governors typically set the overall issue agenda, including the budgetary framework within a state. Legislators, then, make some changes generally at the margins (see for example, Adler & Lane 1988). Early in his new administration, the Governor focused an unusual amount of attention on higher education, including several initiatives which increased (slightly) the amount of money the state provided for higher education. The new funds were provided with strings and generally did not fully fund the activities that were expected as a result of the funds. Nonetheless, higher education benefitted in some ways or at least did not suffer the harm that it could have. The Governor was also able to focus attention on higher education in a way that did not result in increased funding: the creation of the tuition prepayment program.

Another of the Governor's priorities was protection from crime. A pressing issue among voters in Michigan was crime, including protection from it. The Governor's leadership combined with strong interests by key legislators, led to huge increases in spending for prisons and related correctional programs. This, coupled with several court decisions requiring improvement of conditions in prisons pushed spending upward in this budget category. A somewhat smaller, though equally significant area of priority was this Governor's attention to economic development. Another growing area of the budget was spread throughout the area we labelled "other functions" and included funding for such things as tourism promotion, venture capital from the

state, and other assistance to new businesses. In some instances the emphasis on economic development benefitted higher education, to wit: the creation of the Research Excellence Fund (REF). While this fund is incorporated into the higher education budget directly, it sometimes provided a policy platform from which institutions could seek funding from other sources to support "economic development."

The clearest factors contributing to the changes appear to be the policy agendas of the governor, and to a lesser degree the interests of key legislators. The governor can play a strong role in supporting higher education, in diminishing support for it, or in increasing rhetorical volume regardless of expenditure level. Legislators generally appeared to chip away at the margins, sometimes promoting a proposal but rarely bringing a specific agenda to the overall forefront of discussion.

Clearly this is an area rich with future research potential. By starting to point out the areas of further discussion, we have endeavored to point the way to further research in this arena. Many years ago Eulau and Quinley did a landmark study on the role of higher education in the policy arena. They concluded that higher education has little policy salience. Higher education by itself appears to have little salience, but as a means to an end (e.g., to improve the economic status of the state or to provide equal opportunity for have-nots), it gains importance. Another area of interest is to explore the interplay between governors and legislators with respect to the higher education issue agenda. Governors do not set overall policy agendas in a vacuum. They respond to a wide variety of signals, including those put forth by key legislators.

Another area of future research is to examine the character of state funding. Are there more or fewer strings attached to state appropriations? To what extent do those additional requirements include full funding and to what extent are they expected to include matching resources from the institution? Under what environmental conditions are more or fewer strings added to state appropriations?

These and other questions remain for future research. One important consideration, however, for higher education professionals, is to be sure to examine a wide variety of factors in the full state government arena. An informal observation within institutions indicates that scrutiny is given only to the size and shape of the state's higher education budget. Rarely do institutional leaders look closely at the other environmental conditions in the state government milieu.

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APPENDIX A

PERCENT CHANGES IN HIGHER EDUCATION AND TOTAL GENERAL FUND APPROPRIATIONS FROM THE PREVIOUS FISCAL YEAR
FISCAL YEARS 1985 TO 1990

	Fiscal Year 1985		Fiscal Year 1986		Fiscal Year 1987		Fiscal Year 1988		Fiscal Year 1989		Fiscal Year 1990		Cumulative Change FY1985 - FY1990		
	Higher Education	General Fund	Higher Education	General Fund	Higher Education	General Fund	Higher Education	General Fund	Higher Education	General Fund	Higher Education	General Fund	Higher Education	General Fund	Variance
SOUTHEAST															
Alabama	20.9	19.6	22.8	16.5	(10.6)	(7.7)	1.6	4.0	N/R	N/R	(1.3)	(0.6)	33.4	31.8	1.6
Arkansas	24.0	11.3	11.4	11.2	6.4	28.2	4.9	7.9	2.1	15.5	0.5	2.1	49.3	76.2	(26.9)
Florida	18.8	7.7	7.7	9.7	12.3	12.7	8.1	10.5	10.6	10.3	14.7	8.5	72.2	59.4	12.8
Georgia	8.4	8.6	8.0	10.8	3.7	1.7	6.6	6.7	2.9	5.4	13.8	17.1	43.4	50.3	(6.9)
Kentucky	2.3	2.7	5.4	6.5	7.9	13.9	10.7	9.6	7.1	2.1	6.0	5.2	39.4	40.0	(0.6)
Louisiana	15.9	14.1	4.8	(1.2)	0.6	(4.5)	4.4	1.3	(7.4)	(4.4)	0.0	0.0	18.3	5.3	13.0
Mississippi	(6.7)	0.2	14.3	13.6	(15.6)	0.6	10.2	7.5	17.9	11.3	1.6	5.8	21.7	39.0	(17.3)
North Carolina	20.8	20.7	(2.7)	(0.8)	3.8	10.8	8.3	3.8	4.0	13.6	1.5	4.9	35.7	53.0	(17.3)
South Carolina	17.2	10.8	10.0	5.8	3.0	6.1	1.6	7.7	7.4	9.7	6.0	6.2	45.2	46.3	(1.1)
Tennessee	22.9	20.7	11.3	9.0	12.1	5.0	1.1	0.4	8.1	9.6	5.0	5.8	60.5	50.5	10.0
Virginia	10.3	10.4	7.3	10.9	18.6	17.2	4.4	6.7	12.4	11.3	7.5	9.3	60.5	65.8	(5.3)
West Virginia	12.5	10.9	6.0	2.6	4.5	2.5	(3.8)	(9.4)	2.7	2.6	17.3	14.3	39.2	23.5	15.7
SOUTHWEST															
Arizona	11.2	11.3	17.5	8.6	12.6	9.4	10.3	9.6	9.9	12.3	4.8	8.7	66.3	59.9	6.4
New Mexico	16.3	3.0	1.2	4.1	2.6	5.9	4.8	3.2	5.9	1.5	8.6	2.1	39.4	19.8	19.6
Oklahoma	(1.7)	7.9	15.8	13.5	(9.4)	(17.3)	2.1	0.2	12.1	11.3	9.5	6.4	28.4	22.0	6.4
Texas	2.0	9.7	(4.9)	0.4	1.0	0.7	26.9	6.8	3.6	2.6	17.0	11.3	45.6	31.5	14.1
ROCKY MOUNTAIN															
Colorado	6.9	8.0	14.9	6.8	6.0	7.0	6.0	6.1	7.7	5.0	4.7	7.4	46.2	40.3	5.9
Idaho	12.7	20.8	9.6	5.5	6.0	5.1	11.0	7.9	4.3	3.8	8.3	6.1	51.9	49.2	2.7
Montana	3.8	3.9	1.7	(6.5)	(3.4)	1.2	1.4	(7.1)	(0.2)	1.6	4.7	11.9	8.0	5.0	3.0
Utah	11.1	7.6	8.6	0.0	3.0	4.1	4.7	6.9	2.0	4.5	3.4	(0.5)	32.8	22.6	10.2
Wyoming	0.2	12.8	0.0	15.1	(13.4)	(16.4)	0.0	0.0	(0.9)	18.2	0.0	0.0	(14.1)	29.7	(43.8)
FAR WEST															
Alaska	11.7	4.9	(3.9)	(19.9)	(23.1)	(27.0)	(4.1)	0.5	2.5	(0.7)	4.4	(4.3)	(12.5)	(46.5)	34.0
California	13.4	11.9	10.3	9.0	6.2	5.1	6.1	4.1	3.2	6.9	8.1	9.0	47.3	46.0	1.3
Hawaii	0.9	4.1	12.1	12.4	0.5	5.2	12.8	8.6	6.1	5.6	14.1	26.8	46.5	62.7	(16.2)

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PERCENT CHANGES IN HIGHER EDUCATION AND TOTAL GENERAL FUND APPROPRIATIONS FROM THE PREVIOUS FISCAL YEAR
FISCAL YEARS 1985 TO 1990

	Fiscal Year 1985		Fiscal Year 1986		Fiscal Year 1987		Fiscal Year 1988		Fiscal Year 1989		Fiscal Year 1990		Cumulative Change FY1985 - FY1990		
	Higher Education	General Fund	Higher Education	General Fund	Higher Education	General Fund	Higher Education	General Fund	Higher Education	General Fund	Higher Education	General Fund	Higher Education	General Fund	Variance
NEW ENGLAND															
Connecticut	6.3	9.8	15.7	9.5	9.8	1.0	11.5	12.6	13.4	11.7	(0.5)	8.6	56.2	53.2	3.0
Maine	17.7	8.8	10.4	11.0	25.7	7.8	11.1	11.0	10.5	14.6	9.7	9.6	85.1	62.8	22.3
Massachusetts	1.4	12.3	22.2	7.6	4.8	5.0	N/R	N/R	N/R	N/R	(2.6)	(2.0)	25.8	22.9	2.9
New Hampshire	2.8	(3.6)	14.2	13.6	9.4	7.2	18.2	10.8	9.2	3.9	3.8	9.6	57.6	41.5	16.1
Rhode Island	7.0	6.2	6.1	5.5	5.1	5.9	2.8	11.4	8.5	11.5	2.6	5.6	32.1	46.1	(14.0)
Vermont	5.6	6.2	6.4	6.7	3.1	10.6	7.6	21.2	8.7	9.6	8.2	3.4	39.6	57.7	(18.1)
MIDDLE ATLANTIC															
Delaware	6.7	12.2	7.2	16.7	6.4	5.8	4.4	12.1	5.1	3.8	6.5	8.8	36.3	59.4	(23.1)
Maryland	15.4	9.5	5.7	7.6	8.3	7.7	5.3	8.3	12.9	10.5	17.1	11.0	64.7	54.6	10.1
New Jersey	5.3	12.0	2.6	10.1	11.4	3.0	5.1	11.4	5.2	10.3	(4.0)	0.6	25.6	47.4	(21.8)
New York	7.7	9.9	4.5	7.8	5.5	8.3	8.1	7.7	0.1	8.4	1.9	4.3	27.8	46.4	(18.6)
Pennsylvania	8.5	6.7	10.1	8.4	5.7	4.0	1.9	8.1	4.0	(2.8)	8.1	8.7	38.3	33.1	5.2
GREAT LAKES															
Illinois	9.8	2.0	15.6	7.9	9.2	0.1	8.1	2.9	5.2	12.6	10.2	9.8	58.1	35.3	22.8
Indiana	8.4	7.4	12.3	5.5	8.7	7.5	5.6	10.4	3.5	10.9	8.2	10.4	46.7	52.1	(5.4)
Michigan	11.3	9.4	13.5	8.0	6.2	2.3	6.8	4.2	2.7	1.2	4.4	5.3	44.9	30.4	14.5
Ohio	8.1	12.6	15.2	6.4	9.5	10.7	4.5	4.0	4.0	1.9	9.8	5.6	51.1	41.2	9.9
Wisconsin	20.0	13.9	10.4	8.9	(1.3)	4.4	5.3	5.5	4.6	4.5	6.3	5.5	45.3	42.7	2.6
PLAINS															
Iowa	1.5	7.1	(0.2)	4.8	0.2	2.1	0.9	9.1	5.1	9.4	3.8	5.2	11.3	37.7	(26.4)
Kansas	9.6	10.7	2.2	6.2	1.0	2.7	11.2	7.1	5.9	7.6	12.8	11.3	42.7	45.6	(2.9)
Minnesota	3.6	4.1	9.6	0.3	10.4	3.6	2.1	3.4	4.3	2.6	8.0	11.2	38.0	25.2	12.8
Missouri	10.5	7.1	32.0	14.7	5.8	10.8	9.7	11.8	6.4	6.0	8.3	7.1	72.7	57.5	15.2
Nebraska	9.0	6.0	0.8	1.5	3.3	4.5	5.5	4.0	10.4	9.1	14.6	18.7	43.6	43.8	(0.2)
North Dakota	N/R	N/R	8.5	1.3	4.1	6.2	(0.1)	(4.6)	0.0	0.0	21.1	8.3	33.6	11.2	22.4
South Dakota	0.9	10.1	5.2	6.7	0.6	5.7	(0.5)	(1.1)	4.8	5.4	7.7	6.4	18.7	33.2	(14.5)

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PERCENT CHANGES IN HIGHER EDUCATION AND TOTAL GENERAL FUND APPROPRIATIONS FROM THE PREVIOUS FISCAL YEAR FISCAL YEARS 1985 TO 1990

	Fiscal Year 1985		Fiscal Year 1986		Fiscal Year 1987		Fiscal Year 1988		Fiscal Year 1989		Fiscal Year 1990		Cumulative Change FY1985 - FY1990		
	Higher Education	General Fund	Higher Education	General Fund	Higher Education	General Fund	Higher Education	General Fund	Higher Education	General Fund	Higher Education	General Fund	Higher Education	General Fund	Variance
Nevada	2.6	5.0	22.0	(5.8)	10.1	9.5	9.9	0.9	6.5	9.3	20.1	5.5	71.2	24.4	46.8
Oregon	7.0	4.6	7.3	4.2	4.1	4.1	3.5	6.3	3.5	6.3	3.5	6.3	28.9	31.8	(2.9)
Washington	7.9	10.5	6.0	8.4	5.8	4.5	7.0	4.2	5.1	6.9	12.4	12.4	44.2	46.9	(2.7)
U.S. AVERAGE	9.0	8.9	8.0	6.8	5.3	4.7	7.4	6.2	4.9	6.6	7.7	7.2	42.3	40.4	1.9

N/R - Not Reported that year

Source: National Conference of State Legislatures Annual "State Budget and Tax Actions" Report, 1984 - 1989 (Legislative Finance Papers 45,49,54,59,64,69).

APPENDIX B

LEADING FISCAL ISSUES IN THE STATES 1/
Fiscal Years 1983 to 1990

	Fiscal Year							
	1983	1984	1985	1986	1987	1988	1989	1990
Higher Education 2/	0	11	0	0	0	7	7	4
Percent of Total Responding	0.0%	22.0%	0.0%	0.0%	0.0%	14.3%	16.7%	8.2%
Education	0	25	31	34	26	22	28	28
Percent of Total Responding	0.0%	50.0%	64.6%	68.0%	52.0%	44.9%	66.7%	57.1%
Corrections	8	9	10	7	12	1	7	10
Percent of Total Responding	22.2%	18.0%	20.8%	14.0%	24.0%	2.0%	16.7%	20.4%
Transportation	8	3	4	8	5	6	6	9
Percent of Total Responding	22.2%	6.0%	8.3%	16.0%	10.0%	12.2%	14.3%	18.4%
Health/Mental Health	0	14	10	7	6	4	8	7
Percent of Total Responding	0.0%	28.0%	20.8%	14.0%	12.0%	8.2%	19.0%	14.3%
Public Aid/Welfare	0	8	1	13	6	4	3	2
Percent of Total Responding	0.0%	16.0%	2.1%	26.0%	12.0%	8.2%	7.1%	4.1%
Aid to Local Governments	6	5	7	2	2	0	4	0
Percent of Total Responding	16.7%	10.0%	14.6%	4.0%	4.0%	0.0%	9.5%	0.0%
Budget/Taxation	18	30	28	30	23	40	29	36
Percent of Total Responding	50.0%	60.0%	58.3%	60.0%	46.0%	81.6%	69.0%	73.5%
State Employee Salaries/Benefits	16	18	14	12	8	4	3	11
Percent of Total Responding	44.4%	36.0%	29.2%	24.0%	16.0%	8.2%	7.1%	22.4%
Economic Development/Jobs	4	7	4	6	6	3	2	1
Percent of Total Responding	11.1%	14.0%	8.3%	12.0%	12.0%	6.1%	4.8%	2.0%
Environment	0	0	1	1	1	1	5	4
Percent of Total Responding	0.0%	0.0%	2.1%	2.0%	2.0%	2.0%	11.9%	8.2%
Total Respondents 3/	36	50	48	50	50	49	42	49

1/ These are the major issues mentioned by legislative fiscal officers (LFOs). Certain minor issues mentioned are not included in this table.

2/ In some years, higher education is included as an issue with the category of education. However, in certain years, it was listed as a separate issue by LFOs.

3/ Many LFOs listed multiple leading fiscal issues for their states. Therefore, there is some degree of duplication among the various categories.

SOURCE: National Conference of State Legislatures annual survey of LFOs as reported in "State Budget and Tax Actions" reports 1982 - 1989 (Legislative Finance Papers 27,38,45,49,54,59,64,69).